

FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE (REV. 7-2005)		ATTORNEY'S DOCKET NUMBER <b>31725-200815</b>
<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>10/591203</b>
INTERNATIONAL APPLICATION NO. <b>PCT/US2005/006638</b>	INTERNATIONAL FILING DATE <b>28 February 2005 (28.02.05)</b>	PRIORITY DATE CLAIMED <b>02 March 2004 (02.03.04)</b>
TITLE OF INVENTION <b>HYDROGENASE DEFICIENT BACTERIAL STRAINS</b>		
APPLICANT(S) FOR DO/EO/US <b>MAIER, Robert J., et al.</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.</li> <li>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2))               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input checked="" type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)). (<b>Unexecuted</b>)</li> <li>10. <input type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).</li> <li>11. <input type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409).</li> <li>12. <input checked="" type="checkbox"/> A copy of the International Search Report (PCT/ISA/210).</li> </ol> <p style="margin-top: 10px;">Items 13 to 23 below concern document(s) or information included:</p> <ol style="list-style-type: none"> <li>13. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>14. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>15. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment.</li> <li>16. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</li> <li>17. <input type="checkbox"/> A substitute specification.</li> <li>18. <input checked="" type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>19. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.</li> <li>20. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li>21. <input type="checkbox"/> A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).</li> <li>22. <input checked="" type="checkbox"/> Express Mail Label No. <b>EV 417 056 282 US</b></li> </ol>		

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO (if known, see 37 CFR 1.5) <div style="font-size: 1.5em; font-weight: bold; text-align: center;">10/591203</div>	INTERNATIONAL APPLICATION NO. <div style="text-align: center;">PCT/US2005/006638</div>	ATTORNEY'S DOCKET NUMBER <div style="text-align: center;">31725-200815</div>
23. Other items or information: <div style="margin-left: 20px;">           A photocopy of the Written Opinion            A photocopy of the Relevant Statement Regarding Sequence Listing filed in connection with PCT/US2005/006638         </div>		
The following fees have been submitted:		CALCULATIONS      PTO USE
24. <input checked="" type="checkbox"/> Basic national fee ..... \$300		\$ 300.00
25. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ... \$0 All other situations. .... \$200		\$ 200.00
26. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ... \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the as an International Searching Authority. .... \$100 International Search Report prepared by an ISA other than the US and provided to the previously communicated to the US by the IB. .... \$400 All other situations. .... \$500		\$ 100.00
<b>TOTAL OF 24, 25 and 26 =</b>		\$ 600.00
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.		
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole)
- 100 =	0 /50 =	0
		x \$250.00
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).		\$ 0.00
CLAIMS	NUMBER FILED	NUMBER EXTRA
Total claims	17 - 20 =	0
Independent claims	4 - 3 =	1
MULTIPLE DEPENDENT CLAIMS (if applicable) <input type="checkbox"/> +		\$ 360.00
<b>TOTAL OF ABOVE CALCULATIONS =</b>		\$ 800.00
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.		\$ 400.00
<b>SUBTOTAL =</b>		\$ 400.00
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).		\$ 0.00
<b>TOTAL NATIONAL FEE =</b>		\$ 400.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property +		\$ 0.00
<b>TOTAL FEES ENCLOSED =</b>		\$ 400.00
		Amount to be \$
		Amount to be \$

10/591203

IAP5 Rec'd PCT/PTO 31 AUG 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0851-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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- a. ☒ A check in the amount of \$ \$400.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 10-0435. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

ADDISON, Bradford G.  
BARNES & THORNBURG LLP  
11 South Meridian Street  
Indianapolis, IN 46204  
US

SIGNATURE

Bradford G. ADDISON

NAME

41,486

REGISTRATION NUMBER

31 August 2006 (31.08.06)

DATE

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Attorney )  
Docket: 31725-200815 )  
Applicants: Robert J. MAIER, et al. )  
Invention: HYDROGENASE DEFICIENT )  
BACTERIAL STRAINS )  
U.S. Serial No.: UNKNOWN )  
International )  
Serial No: PCT/US2005/006638 )  
International )  
Filing Date: February 28, 2005 )  
Earliest )  
Priority Date: March 2, 2004 )

**CERTIFICATE UNDER 37 C.F.R. § 1.10**

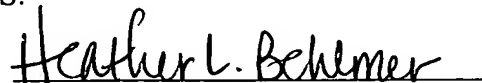
Attention: DO/EO/US  
Box PCT  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

"Express Mail" Mailing Label No.: EV 417 056 282 US

Date of Deposit: 31 August 2006 (31.08.06)

I hereby certify that this paper or fee is being deposited with the United States Postal Service's "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Attention: DO/EO/US.

  
Heather L. Behlmer

Indianapolis, IN  
(317) 231-7762